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## Meeting Notes

Attendees: NHDOT  
Jeff Brillhart  
Charlie Hood  
Marc Laurin  
FHWA  
Butch Waidelich  
Bill O'Donnell  
VHB  
Bruce Tasker  
Tony Grande  
See sign-up sheet for others

Date/Time: March 21, 2001

Project No.: 50885

Place: West Running Brook Middle  
School - Derry, NH

Re: Resource Agency Meeting No. 12  
I-93 Salem- Manchester  
Phase III Detailed Design from MA line  
through Exit 2

Notes by: Bruce Tasker, VHB  
Reviewed by: Jeff Brillhart, NHDOT

Charlie Hood opened the meeting explaining this meeting is a continuation of the regular monthly Natural Resource Coordination Meeting that the Department holds for various Resource Agencies and at which Department projects are discussed, and comments, questions and input are taken regarding the projects. Because of the importance of the I-93 project and the need to involve the public, the I-93 Resource Agency meetings are being held locally along the corridor.

This meeting was held to present the engineering concept plans and impacts associated with the widening of I-93 from the Massachusetts border to Exit 2 and to listen to a proposal by the Town of Windham for mitigating impacts associated with the I-93 improvements.

Marc Laurin explained that the Department was approached by the Town of Windham and asked to consider the acquisition of a proposed development known as Castle Reach (currently under review by the Windham Planning Board) for purposes of mitigating the impacts to natural resources that may occur as a result of highway improvements to I-93. The Department's staff and the Town's Conservation Commission reviewed the parcel in the field. Marc noted that given the Town's enthusiasm for the site and the developer's schedule, decisions must be made fairly quickly relative to purchasing the site. The Agencies need to provide direction as to whether the site would provide meaningful mitigation for impacts in the Windham area. Marc introduced Cheri Howell, Chairperson from the Windham Conservation Commission.

Cheri noted that the Conservation Commission, the Board of Selectmen and the Planning Board requested that the Department purchase the proposed Castle Reach subdivision. The Town feels that this property would make an excellent site for mitigating impacts associated with I-93 for several reasons: (1) this area contains a high quality water body, Mitchell Pond and a creek; (2) it is a diverse and unique wildlife habitat area; (3) there are a variety of wetland types represented in this parcel; (4) there are historic remnants such as stone walls and bridges; (5) the site borders the abandoned M&L Railroad corridor; and (6) it is adjacent to I-93 and can buffer runoff coming from the highway. The subdivision is eminent with a portion already approved and under construction. The Conservation Commission has reviewed other open space areas in the Town of Windham to make sure the Castle Reach / Mitchell Pond site is the best site for mitigation for I-93. After reviewing 15 other parcels, the Conservation Commission feels the site is the best possible site to address I-93 impacts. Protecting this large natural area is consistent with the Town's master plan. The principal landowner has been very cooperative and enthusiastic about discontinuing the development and preserving the site. The Town would very much like to see the undeveloped property preserved as a natural area and in doing so the Department would generate a great deal of public support.

Jim Gove, Gove Environmental Services, noted that there has been a lot of the work done from the standpoint of wetlands delineation, identification of wildlife habitat, survey, etc. for the 400 acre parcel. Jim described the unique wetland features their functions and values and the wildlife habitats associated with the Castle Reach parcel. Besides Mitchell Pond, which is classified as a Great Pond, there are a number of important wetlands within the property.

- Rosemary Monahan: Does the Town require subdivisions be designed to include open space?
- Jim Gove: Such designs are not required, but are encouraged.
- Wayne Morrison: The Town does try to encourage open space developments and believes the Castle Reach development is an open space development. It should also be noted that the Windham Planning Board is holding a public hearing for Phase II (51 lots) of Castle Reach tonight.
- Ken Kettenring: From the DES Wetlands Bureau point of view, the preservation of this site is very much worth looking into.
- Rosemary Monahan: What is the timeframe? If Phase 2 is constructed, then the site might not be as promising.
- Jeff Brillhart: Typically, the Department would like to evaluate a number of sites via a public hearing before selecting the preferred site. However, given the developer's schedule that process is not available.
- Ken Kettenring: Looking at this first hand, this location looks like it would provide the right types of mitigation based on our proposed rules for mitigation.
- Jim Gove: The Town of Windham has no designated prime wetlands, but a number of the wetlands on the property would qualify for prime wetland designation.
- Ken Kettenring: Even if the ratio of impacts to preservation (I-93 vs. Castle Reach) is not known at this time, the site could be evaluated based on our proposed rules to see how many acres of impacted wetlands this site could mitigate. Looking at this site plan, in general, it looks like the ratio would be would be very high.

Roger Hohenberger: The Selectmen are in favor of this proposal. A couple of things to point out: (1) There is a trail system in Windham of old logging roads that the Planning Board has been actively trying to preserve through the Master Plan and through individual subdivision and site plans. This parcel connects a number of these and access can be made to this parcel through these trails and through the Rockingham Recreational Trail. (2) The Town of Windham has a Wetland and Watershed Protection District because of concerns about preserving water quality. Preserving this area would be in keeping with the needs of the District. (3) The Town of Windham is only 27 sq. miles, which is fairly small, and I-93 makes a significant impact on the Town. Preserving this site could go a long way towards mitigating the impact to the Town.

Comment: Is there some idea of a timetable when the decision would be made to purchase the site?

Jeff Brillhart: A field trip will be scheduled for the middle of April to confirm with the Agencies that they will endorse and confirm that the site (when permitting time comes) will address the impacts to Windham. The Department would then negotiate with the property owner in the next four to six months. If all the stakeholders in the process are in agreement that this site works, then it's a matter of negotiating a price with the property owner.

Comment: Are we able to start the appraisal process at this point?

Jeff Brillhart: We are going forward with the appraisal process at this point in time.

Jeff Brillhart then focused discussion on the I-93 proposed improvements and impacts beginning at the Massachusetts Border and ending just north of Exit 2.

The Department has begun the preliminary designs for the widening of I-93 and the interchanges. These designs are still conceptual and can be modified based on input received from the agencies and public as the process moves forward. The process is iterative with more detail and information presented through each of the project phases.

Tony Grande briefly described the plans. He noted that the plans consist of 200 scale plans for the 3 and 4-lane concepts from the MA line to Exit 2 and 100 scale plans of the two interchange options for each interchange.

Two separate widening plans were developed (although they look generally the same given the scale), with one plan representing a 3-lane scenario and the second representing a 4-lane scenario.

Tony described the typical roadway cross section, which for the 4-lane option includes four 12' travel lanes and a 12' wide shoulder on the outside. On the inside there is space for 12' wide shoulder and in additional 6' to allow room to accommodate an HOV lane, if appropriate in the future or room to make minor modifications to the design as it proceeds to the next level. Tony noted that space (ranging from 60' to 90') for a potential future rail line is also being reserved.

#### MA line to Exit 1 - NB

Beginning at the southern end of the project, the eastern edge of pavement was held as a control through the majority of this section. The widening is towards the median for the NB barrel and to the west for the SB barrel, to minimize impacts to Policy Brook. The mainline concept has been

extended south of the MA line to introduce a fourth lane in the NB direction at the Route 213 NB on-ramp. Near the MA/NH border an auxiliary lane is added to transition to a 5-lane section for a short distance until the introduction of a 2-lane collector-distributor (C/D) road for traffic wishing to use the rest area or the Exit 1 NB Off ramp. The median width between the NB mainline barrel and the C/D road is 20 feet. Traffic leaving the Rest Area wishing to get back onto I-93 NB will only have to weave with traffic heading for the Exit 1 NB Off ramp and then merge onto I-93 NB mainline just south of the Exit 1 NB On ramp traffic. The Exit 1 NB Off ramp will be a 2-lane off ramp transitioning and matching into the existing 3-lane section approaching Rockingham Boulevard. The Exit 1 NB On ramp will require total reconstruction and widening of the bridge over South Policy Street. A retaining wall will also be required along the east side of the ramp to minimize impacts to the wet areas and buildings at this location. Potential sound barriers are currently under investigation and may be required adjacent to the I-93 NB barrel between stations 1005+00 and 1042+50, RT (approximately 4,000 ft along the Haigh Avenue/Azarian Drive neighborhood areas) and along the Exit 1 NB Off ramp (approximately 2000 ft along the McLarnon Road / MacGregor Street neighborhoods).

#### MA line to Exit 1 - SB

In the SB direction, north of Exit 1, the inside edge is being held near NH 38 and then transitioning to the inside while trying to match the outside edge in close to the existing SB ramp locations to reduce wetland impacts in the vicinity of the SB ramps. There are 2 options for the SB ramps. One option is to hold the existing ramp geometry and reconstruct the bridges as necessary to gain proper vertical clearance. A second option would provide an improvement to the existing geometry and reconstruct the ramps on new location, further to the west. A 2-lane SB On ramp would transition down to one auxiliary lane and then merge with the proposed 4-lane section on the SB mainline. The fourth lane would then carry into Massachusetts and transition out beginning at the nose of the Route 213 SB off-ramp and ending just north of the existing mainline bridge.

#### Cross Street

There are three options for Cross Street. One option would be to construct a new bridge on the existing alignment, which would require constructing a temporary bridge. A second option would be to construct a new bridge on new location, just north of the existing bridge. This option would not require construction of a detour bridge, but would have more difficult impacts to residential properties. A third option would be to construct a new bridge further to the north utilizing a smooth curve alignment. This option does not involve a detour bridge, but has still more difficult impacts to residential properties.

#### Rail Line

Should the potential future rail line tie into the existing Manchester to Lawrence line east of I-93, as the line approaches I-93 it would cross over I-93 and parallel the SB barrel to the west. The rail line would then cross over Cross Street and continue to parallel the SB ramps before crossing over the I-93 NB barrel and NH 38 before aligning, within the median, with the NB barrel north of NH 38. From this point forward, through Exit 2, the rail line would remain within the median.

#### Exit 1 to Exit 2 - NB

The NB barrel is being raised approximately 2 feet higher over NH 38 (Lowell Road) to provide for proper clearance. The bridge abutments will be constructed far enough back to accommodate a future 5-lane section for NH 38 (Lowell Road). The inside edge is being held with widening to the east to minimize impacts to Porcupine Brook. The rail would likely be constructed on structure through the Porcupine Brook area to minimize impacts. A retaining wall is proposed to maintain Woodland Terrace and the access it provides to abutting properties. A potential soundwall is being investigated for this area to minimize impacts to homes along Trolley Lane as well.

The Exit 2 NB ramps would continue to have a similar diamond type configuration as exists today. The NB On ramp is being evaluated for a truck climbing lane due to the long steep grade in this area. A longer merging area and truck lane may be more appropriate to allow trucks to come up to proper speed before merging with NB mainline traffic.

#### Exit 1 to Exit 2 - SB

The SB barrel is being raised approximately 2 feet higher over NH 38 (Lowell Road) to provide for proper clearance similar to the NB barrel. The bridge abutments will be constructed far enough back to accommodate a future 5-lane section for NH 38 (Lowell Road). The inside edge is also being held through this area with widening to the west to minimize impacts to the Porcupine Brook area. The SB ramps have two options. One option will construct a new diamond configuration, similar to the NB ramps. A second option would provide a WB Pelham Road to I-93 SB loop ramp configuration, which would merge with EB Pelham Road to I-93 SB on ramp traffic. SB On ramp vehicles would then merge down to one lane before merging with the I-93 SB mainline traffic. The major difference between the two configurations is that the loop option eliminates one traffic signal through the interchange area and would require a double left-turn onto Keewaydin Drive. With either option, a retaining wall would need to be constructed along the SB Off ramp to minimize impacts to adjacent parcels.

#### Pelham Road

Pelham Road will be widened to a 5-lane section. Current plans under development by the Town of Salem propose a 4-lane section through this area. Traffic signals for the Diamond option will be required at the following Pelham Road intersections: Manor Parkway/Stiles Road, Keewaydin Drive, SB ramps, NB ramps, and South Policy Street. As mentioned previously, the Loop option will eliminate one signal by intersecting the SB Off ramp with Keewaydin Drive. This option would also require the addition of a double left-turn lane on Pelham Road to access Keewaydin Drive. A 5-ft sidewalk is proposed along the south side of Pelham Road through this area. Two 5-ft shoulders are proposed to accommodate bicycle traffic.

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| Comment:          | Would the I-93 rail corridor be served by light rail?   |
| Tony Grande:      | Yes, because the existing I-93 horizontal and vertical geometry can not accommodate heavy rail with today's technology.   |
| Rosemary Monahan: | How will stormwater be dealt with along the highway, particularly in the area of wetlands?  |
| Tony Grande:      | The designs being presented will be refined to show drainage out-fall areas and where Best Management Practices can be put in place to properly provide stormwater treatment. |
| Rosemary Monahan: | Will water quality treatment be accomplished primarily through the use of vegetated areas?  |
| Tony Grande:      | Typically that is the preferred option.   |
| Comment:          | Do the plans call for two additional lanes on each side of the highway all the way up to Manchester?  |
| Tony Grande:      | There are three options being looked at; an alternative with 3-lanes in both directions the entire length, an alternative with 4-lanes in both directions the                 |

entire length; and a combination 4-lanes south of Exit 3 and 3 lanes north of Exit 3. As currently designed, the 4-lane and 3-lane alternatives are basically the same from the Route 213 interchange to the Exit 1 ramps.

- Rosemary Monahan: Do you know the area of wetland impacts is for the different alternatives at this time?
- Tony Grande: That will be completed once the widening and interchange alternatives have had at least one round of reviews.
- Comment: Is the Castle Reach Mitigation Area shown on the plans?
- Tony Grande: The Castle Reach mitigation area is north of Exit 3 and consequently not shown on the plans.
- Comment: Could you explain the difference between the two alternatives for the Exit 1 interchange, particularly the SB off-ramp and the reasons for the geometric differences?
- Tony Grande: The existing ramp curvature is below the current accepted minimum design standard. The SB off ramp has sharp curvature that does not meet today's design standards and driver expectations. Given the amount of wetland in the interchange area, a design that maintains the sharp curvature is being considered. With essentially a new facility for I-93 under consideration and the entire roadway being upgraded to modern standards as practicable, it may be preferable to upgrade the ramp geometry for Exit 1. As a result there are two designs.
- Mike Fitzgerald: Is the area of prime wetlands shown in the vicinity of Exit 1 the entire area of the prime wetland or do the prime wetlands extend further to the west?
- Tony Grande: The prime wetlands extend further to the west. What is shown on the plans is the extent of our mapping.
- Ken Kettenring: Why does the rail go outside the median at the Exit 1 interchange?
- Tony Grande: If rail is to connect to the Lawrence Station via the old M&L line, it must get from the median to the east side of I-93. However because of the I-93 geometry and the proximity of the NB and SB barrels to each other south of Exit 1, it appears that the most reasonable means of making the transition is to swing the rail line to the west just north of the Exit 1 interchange and avoid intersecting the Exit 1 SB ramps. The line then parallels the west side of I-93. The line would then cross back over just north of the MA/NH border to connect to the M&L line. This layout is also compatible with the option that continues the rail line down to the Woburn Transportation Center. In Massachusetts the NB and SB barrels are adjacent to each other so the rail line would appear to be located east or west of the highway.
- Comment: Why is rail being considered at all in the I-93 corridor? To do so results in more impacts to abutting properties and seems to be unnecessary given the availability of the Manchester - Lawrence Line.

- Jeff Brillhart: In the future, it is likely that rail will play a role in transportation if we are to continue to enjoy the mobility we currently have. Whether rail down the median of I-93 either over to Lawrence or all the way down to the Woburn Transportation Center will be constructed is unknown at this time. The other alternative for rail service in this area is using the existing rail line that goes from Manchester down to Derry and into Salem and onto Lawrence. To decide which rail line to use, another study needs to be done to look at these two alternatives in detail. Such a study needs to be done with Massachusetts because so much depends on what Massachusetts is able to do. From the Department's perspective, we think it is important not to preclude the possibility of rail service along the I-93 corridor in the future. Rail transportation is being revived here in this country, and in the next 10 to 20 years there will likely be a lot of changes in terms of technology for rail service. Whatever is done now for the widening of I-93, the possibility of a rail line within the I-93 corridor should be preserved.
- Comment: The existing rail bed runs adjacent to the highway, so why not just use that line instead of planning for something in the middle of the highway?
- Jeff Brillhart: The existing rail corridor is not really adjacent to the I-93 corridor. In certain location it passes close to the highway, but for the most part, it is not adjacent to the highway, and it would not be accessible from the highway. If it were constructed in the highway corridor and extended into northern MA along I-93, a number of people would use it to access industrial centers in MA. The possibility for a rail line should be preserved.
- Ken Kettenring: Both rail lines are options for the future. A number of the Resource Agencies including NHDES feel there should be a concurrent study of the various rail alternatives. The study need not directly be tied to this study for widening I-93, but should be done concurrently because rail is something that is going to be needed in the future. We should be looking at the various options now with the same intensity that we are looking at the options of expanding the highway, so that the State is in a good transportation position 20 years from now.
- Comment: When there is an existing infrastructure already in place for the rail line from Lawrence to Manchester, how is it economically responsible to build a new rail line in the middle of the highway? Such a rail line will have a major impact on residences close to I-93, even with a sound barrier.
- Jeff Brillhart: The existing rail corridor has a number of problems. If the infrastructure were all there and operating, then perhaps a line down I-93 would have less merit. As it is, the existing line has been unused (and largely dismantled) for 40 to 50 years. To revive it will be difficult both technically and in terms of impacting residents nearby to it.
- Comment: Where might the train stations be located?
- Tony Grande: The Park and Ride facilities at Exit 2, Exit 3, Exit 4, and Exit 5 are being developed with the possibility in mind that they could be expanded to serve as train stations as well.

- Comment: What is being done for the property owners and the need for soundwalls at Exit 1?
- Tony Grande: Sound walls are being investigated throughout the corridor. Where noise exceeds standard thresholds and barriers are cost effective, barriers will be proposed.
- Comment: What is the difference between prime and non-prime wetlands?
- Ken Kettenring: There is a state law, which allows the municipalities to designate certain wetlands as prime wetlands, thus giving them a higher level of protection. That designation is voted at town meeting in a manner similar to the process used to establish zoning designations and requirements. In a sense, the town zones certain wetlands as prime, which requires that a higher standard be met if impacts are to be permitted. The Town of Salem designated the wetlands that are shown to be prime with that process.
- George Jones: Everyone should be aware of the fact that last Wednesday the Town of Salem undesignated some prime wetland areas in order to accommodate some of these proposed highway modifications.
- Please explain what you meant by on-line/off-line with regards to the Cross Street bridge.
- Tony Grande: On-line construction means the bridge would be replaced at its current location and a temporary detour bridge would be constructed to maintain traffic while the existing bridge is replaced. Off-line construction means that the new bridge would be constructed adjacent to the old bridge and the old bridge would be used to maintain traffic until the new bridge is completed. Then the old bridge would be removed.
- George Jones: Why is the proposed C/D road along I-93 NB required, given that there are already four lanes of highway and people manage to get in and out of the rest area now? What is the need for a separate C/D road and why two lanes of road? You are adding another 36' of pavement there.
- Tony Grande: The design that is shown on these plans reflect traffic conditions in the design year 2020. It is projected that traffic will have increased to the level where a two-lane C/D road would be warranted through this stretch.
- George: I was unaware that four lanes in each direction was under consideration. Is this something new?
- Jeff Brillhart: We have been talking about four lanes for some time. South of Exit 1, the traffic volumes in 2020 require five lanes in each direction, but we are proposing four lanes because it is unlikely Massachusetts would ever have more than four lanes. If they change their minds, we will take a harder look at it. At this point in time, the traffic volumes indicate we need four lanes at least up to Exit 3 and three lanes north of Exit 3 in both directions. We are looking at three lanes the entire length of the corridor as an option because we know it is difficult to widen highways these days.



- Comment: At your last meeting you discussed that each of the agencies should go back to their Directors and talk about having concurrent studies for the rail and for the highway. Has that been pursued at all, so that rail is being as seriously considered as the highway?
- Jeff Brillhart: The NHDOT has contacted the Secretary of Transportation in MA, but thus far there has been no response. Massachusetts needs to be a part of whatever study is undertaken because so much depends on what Massachusetts might do. The NHDOT has also contacted the NH Congressional Delegation in Washington. It is hoped that funding from Washington will be available so that both states can get a study done that can help both states.
- Comment: Should people who abut the highway write their congressmen and senators?
- Jeff Brillhart: That would be fine. I think the critical link here is the State of Massachusetts. They have their own study going in Andover and Methuen on I-93, but it is still just a segment of I-93. It really doesn't look at the whole picture of I-93 from Manchester or Concord down to Boston. That is the kind of study that is really needed. A study that looks long term at all options, and includes public participation from both states.
- Jeff Brillhart: In terms of schedule the next Resource Agency meeting is on April 18 to talk about Exit 3. A Task Force meeting will be held in Salem on March 29<sup>th</sup>.